

Your Memories Of All Life's Moments Can Last A Lifetime

Thank you for purchasing the Terapin CD Audio Video Recorder.

Home movies will never look the same again, now you can put them on a CD and play them back on any DVD or VCD player, or multimedia PC. The Terapin CD Audio Video Recorder is as simple to use as a VCR — all you do is load in a blank CD-R or CD-RW disc and you can record straight from your camcorder, from broadcast programs, or transfer old recordings from video tape to CD.

Unlike tapes, your memories will be clearer and more vivid, and they'll last virtually forever!

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Table of Contents



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General Information	2
Safety	
FCC Rules	
Technical Data	
Recording Media	
Playback Media	
Maintenance	
Accessories	
Controls and Connections	4
Front Panel Controls	
Rear Panel Connections	
Remote Control	
Installation	6
General Connections	
Installation	
Setup Recommendations	
General Functions	9
Power-up	
Mute	
Disc Loading	
On-screen Display (OSD)	
Disc Recovery	
Resume	
Shuffle	
Display	
Program	
Menu	
Audio Mode	
PBC Off	
Return	
Playback Functions	12
Play	
Stop	
Pause	
Next	
Previous	
Fast Forward/Backward	
Repeat	
View	
Step	
Time Search	
Slow Motion	
A-B Play	
Recording	15
Record Video/Audio	
Finalising A Disc	
Confirm	
Erase	
CD Synchronize	
Last Track	
Recording Procedure	17
Recording from an external source	
Analog Sources	
Digital Sources	
Automatic digital source recording – CD Sync	
Stop Recording	
Pause Recording	
Remarks about Recording	
Troubleshooting	20
For Service	21

Safety

This unit employs a laser. Due to the risk of eye injury, only a qualified service person should remove the cover or attempt to service this device.

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Never make or change connections when the power is still switched on.



Uninsulated dangerous voltages present that may constitute a risk of electric shock.



Caution:

To prevent the risk of electric shock, do not remove the cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.



Please refer to important operating and maintenance (servicing) instructions in the literature accompanying this appliance.

FCC Rules

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received including interference that may cause undesired operation.

Technical Data

Digital frequency response	0-22,050 Hz
Playback S/N	90dB
Playback dynamic range	90dB
Playback total harmonic distortion	0.05%
Recording S/N (Analog)	88dB
Recording S/N (Digital)	Equal to source
Recording dynamic range	88dB
Digital coaxial input (IEC 958)	44.1 kHz +/-100ppm
Digital optical input (IEC 958)	44.1 kHz +/-100ppm
Analog input (4 steps -3,0,3 & 6dB)	500mVrms/50kohm=0dB
Audio output	2Vrms +/- 2 dB
Digital coaxial output	0.5Vpp/75ohm
Dimensions	398(w) x 348(d) x 115(h) mm
Weight	approx. 5.4kg
Power consumption	26 Watts
Operating Temperature	0-45 °C
Power Supply	AC 100 – 240V



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General Information

Recording Media

Your recorder uses two types of discs for recording purposes:

- **Consumer CD-Recordable (CD-R) discs**

These are write-once only and cannot be erased once written. When recorded and finalised, these discs play on all CD players and recorders.

- **Consumer CD-ReWritable (CD-RW) discs**

Can be recorded, erased and re-recorded hundreds of times. When finalised, they play on CD-RW compatible CD players and recorders.



Notes: 1. Unfinalised discs can only be played on your recorder, not on any other player.

2. Only Consumer CD-R/RW discs can be used for audio recordings.

3. The disc should be able to support 1X/2X recording.

4. We recommend that you use Terapin CD Consumer Audio/Video media, or any other high quality, major-brand CD Consumer Audio media. However, Terapin accepts no responsibility for any malfunction or defective recordings made using non-Terapin CD Consumer media.

Playback Media

Your CD Audio Video Recorder is able to play:

- All pre-recorded audio/video CDs
- All audio/video CD-Rs and audio/video CD-RWs

Maintenance

When recording, it is very important to use dust- and scratch-free discs.

To clean a CD, wipe it in a straight line from the center towards the edge using a soft, lint-free cloth. A cleaning agent may damage the disc. Write (Label) only on the printed side of a CD-R or CD-RW, and only with a soft felt-tipped pen.

Clean the CD Audio Video Recorder with a soft, slightly dampened lint-free cloth. Do not use any cleaning agents as they may have a corrosive effect.

Do not expose the CD Audio Video Recorder, batteries or CDs to humidity, rain, direct sunlight or excessive heat.

If the CD Audio Video Recorder cannot read CDs correctly, try using a commonly available cleaning CD to clean the lens before sending it in for repair. Other cleaning methods may destroy the lens. Always keep the tray closed to keep the lens dust-free.

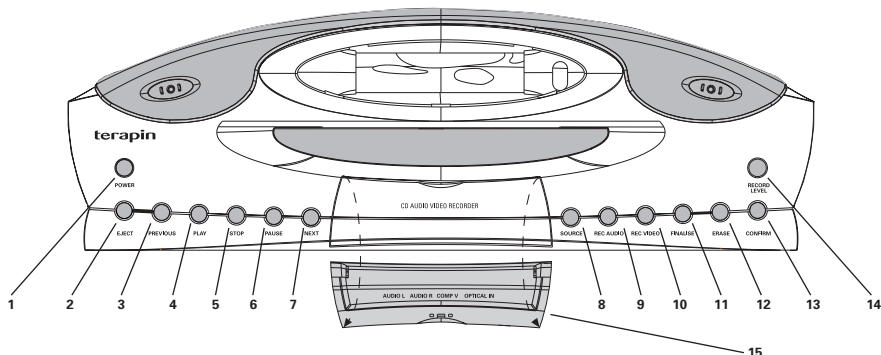
The lenses may cloud over when the CD Audio Video Recorder is suddenly moved from cold to warm surroundings. Playing a CD is not possible then. Leave the CD Audio Video Recorder until the moisture evaporates.



Accessories

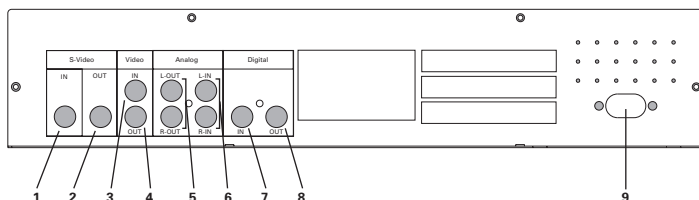
- 2 analog audio/video cables (with red, white and yellow plugs)
- Power cord
- 2 batteries
- Remote control
- Warranty card

Front panel controls



1. **POWER** – switches the unit ON and OFF
2. **EJECT** – opens/closes CD tray
3. **PREVIOUS** – goes back to previous track
4. **PLAY** – starts playback
5. **STOP** – stops playback or recording
6. **PAUSE** – interrupts play or recording
7. **NEXT** – goes to next track
8. **SOURCE** – selects input source for recording
9. **REC AUDIO** – starts audio recording
10. **REC VIDEO** – starts video recording
11. **FINALISE** – finalises recording or erases Table of Contents
12. **ERASE** – erases track or disc
13. **CONFIRM** – confirms your selection to erase, finalise, record or save & exit menu
14. **REC LEVEL** – adjusts recording level
15. **FRONT PANEL INPUT CONNECTORS**

Rear panel connections



1. **S-Video In** - connects to the (S-Video) line output of an external source (e.g. VCD player)
2. **S-Video Out** - connects to the (S-Video) line input of a color TV
3. **Video In** - connects to the (video) line output of an external source (e.g. VCD player)
4. **Video Out** - connects to the (video) line input of an of a color TV
5. **Analog Out** - connects to the (audio) line input of an amplifier (left & right)
6. **Analog In** - connects from the (audio) line output of an amplifier (left & right) or external audio source
7. **Digital In** - Connects to the digital output of external source (e.g. CD Player)
8. **Digital Out** - connects to the digital input of an amplifier
9. **Mains connector** - connects to the AC mains (100 - 240V)

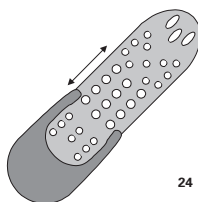
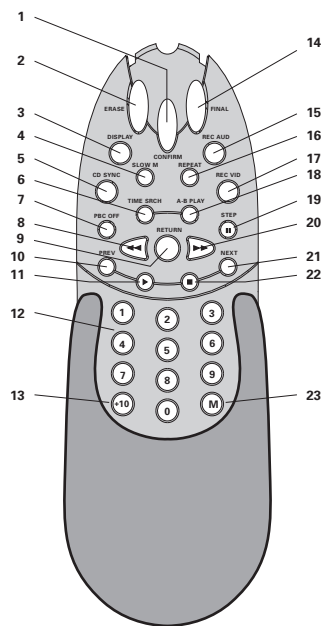


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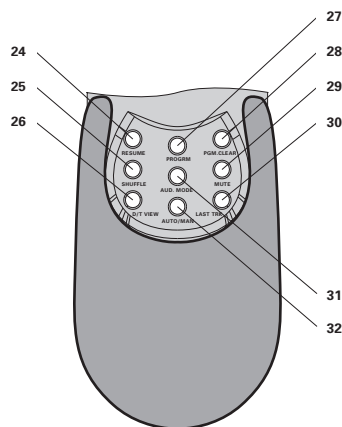
Controls and Connections

Remote Control

1. **CONFIRM** – confirms your selection to erase, finalise, record or save & exit menu
2. **ERASE** – erases recording. Toggles between Track Erase and Disc Erase
3. **DISPLAY** - scrolls between various display formats
4. **SLOW M** - Slow motion playback (1/2, 1/4 or 1/8 speed)
5. **CD SYNC** – synchronize with external digital audio source
6. **TIME SRCH** – to jump to a specific point in the track
7. **PBC OFF** - playback control off (for VCD 2.0)
8. **◀◀** - fast search (backward)
9. **RETURN** - Returns to previous page of playback control
10. **PREV** – goes back to previous track
11. **PLAY** – starts playback
12. **0-9** – numeric keys
13. **+10** – to select track numbers above 9
14. **FINAL** – finalises recording / erases TOC
15. **REC AUD** - records from audio source onto CD-R/CD-RW in real time
16. **REPEAT** – repeats track or disc
17. **REC VID** - records from video source onto CD-R/CD-RW in real time
18. **A-B PLAY** - to play between 2 chosen points in the disc repeatedly
19. **STEP** – interrupts play / steps to next video frame if pressed continuously
20. **▶▶** - fast search (forward)
21. **NEXT** – goes to next track
22. **STOP** – stops playback or recording
23. **M** - Menu. Displays the RECORD SETTINGS at the OSD



24. **RESUME** – continues play from where it was last stopped
25. **SHUFFLE** – random play
26. **D/T VIEW** - Activates Disc View / Track View display
27. **PROGRAM** – enter into program mode
28. **PROGRAM CLEAR** – clears the program
29. **MUTE** - mutes the audio output
30. **LAST TRK** – stops recording after current track
31. **AUD. MODE** – selects audio output (stereo, left or right)
32. **AUTO/MAN** – selects automatic or manual

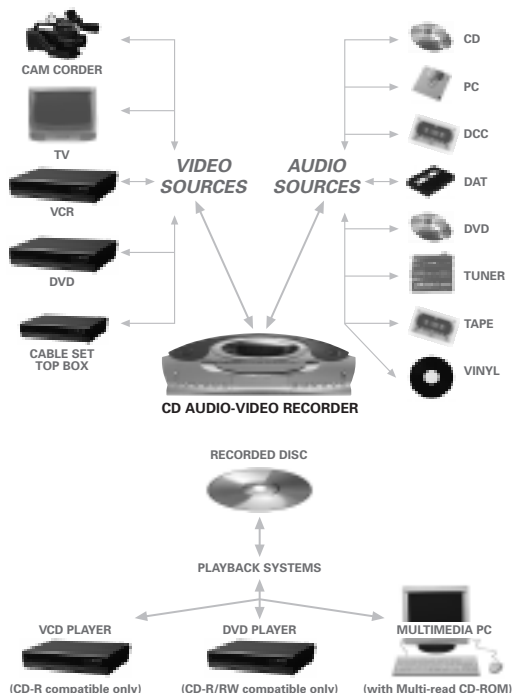


General Connections

Your recorder allows you to record video from various video sources such as camcorders, TVs, VCRs, DVD players, etc.

It also allows you to record songs and music from audio sources such as tuners, CD players, cassette tape players, etc.

The recorded discs can be played on various playback systems such as VCD players (CD-R compatible only), DVD players (CD-R/RW compatible only) and Multimedia PCs with Multi-read CD-ROMs.



For **audio/video playback**, the recorder has the following outputs:

- Digital Coaxial output (for audio playback only)
- Analog output
- Composite Video output (Vid. Comp)
- Super-video output (S-video)

They can be connected to the input connectors of external audio/video equipment (e.g. amplifiers, TVs) during operation.

For **audio/video recording**, the recorder has the following inputs:

- Digital Coaxial input (for audio recording only)
- Analog input (Front & Back)
- Optical input (for audio recording only)
- Composite Video input (Vid. Comp)
- Super-video input (S-video)

They can be connected to the output connectors of external audio/video equipment (e.g. CD players, VCD players, DVD players, etc)

The connections you make will depend upon the possibilities your audio/video equipment offers. Please refer to the user manuals for your other audio/video equipment first.

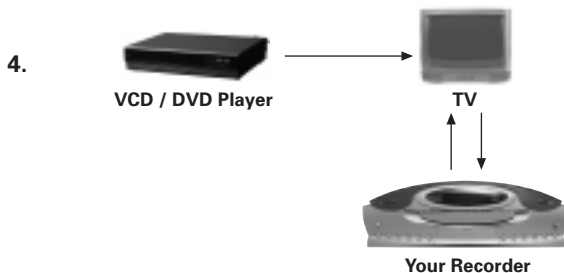
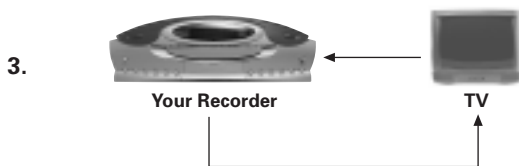


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Installation

General Connections

Examples of possible connection set-ups



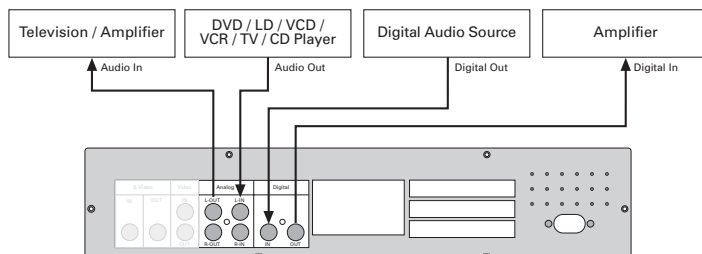
Note

For these last two connection set-ups (Nos. 3 & 4), please disable **Monitor mode** in the Menu. Recording will remain normal and unaffected.

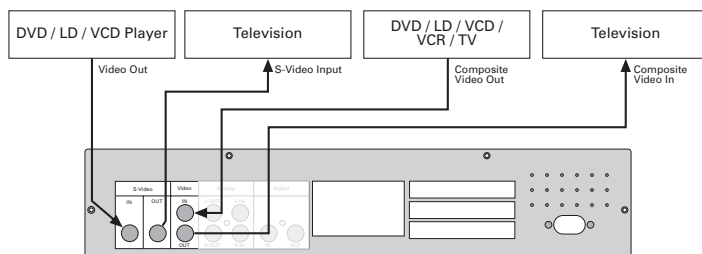
...and many more other possible connections.

Installation

- Connect the AC cord to mains power outlet.
- The audio output can be connected to an external amplifier via the RCA Audio Left & Right outputs and/or Digital Coaxial output.
- The video output can be connected to an external TV or monitor via the RCA Video and/or S-Video connectors.
- Connect the video input to the video source you will be recording from e.g. camcorder, VCR, TV, etc. via the RCA Video In connector. There is also a video in connector on the **front panel** (not shown) for video recording.
- Connect the audio input to the audio source you will be recording from e.g. cassette deck, CD player (or if you are recording a video signal, to the audio signal component from the video source) via the RCA Audio In connector. There is also an analog input and optical input on the **front panel** (not shown) for digital audio recording.
- User interface is via the **VFD** (Vacuum Fluorescent Display) on the CD Audio Video Recorder and the **OSD** (On-Screen Display) on the TV screen.
- User input is via the **Remote Control** and **Front Panel keypad**.



Audio connections



Video connections

Connecting up your Terapin CD Audio Video Recorder

Setup Recommendations

- Ensure that the recorder is placed on a solid, vibration-free surface
- Never place the recorder near a source of heat or in direct sunlight
- Never use the recorder in extremely damp conditions
- Ensure that there is sufficient free space on all sides of the recorder for proper ventilation



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General Functions

Power up

Press **Power** on the front panel to turn on the CD Audio Video Recorder. The recorder boot-ups, displaying a Terapin logo after 1 sec. The Front Panel (VFD) displays **TERAPIN**, then both VFD and OSD show **CLOSE** and **READING**.

If an unfinalised Audio CD-RW or Video CD-RW is inserted, the recorder prompts the user with a display similar to **12 52:31** (disc time), otherwise it displays **NO DISC** on OSD and VFD.

If a pressed disc or finalised CD-R/RW is inserted, the OSD only shows the Terapin logo.

Mute

Press **MUTE** on the Remote control to mute the audio output. VFD displays **MUTE / 01 00:30** and OSD displays **MUTE** for 3 seconds. In Stop mode (without CD-R/RW disc), VFD and OSD display **MUTE** for 3 seconds.

Press **MUTE** again to re-activate the audio output. VFD displays **UNMUTE / 01 00:31** and the OSD displays **UNMUTE** for 3 seconds. In Stop mode (without CD-R/RW disc), the VFD and OSD display **UNMUTE** for 3 seconds.

Disc Loading

Press the Tray **EJECT** button on the front panel.

This function is disabled during Recording, Finalising and Erasing mode to prevent corruption of the disc which can render the disc useless.

On-Screen Display (OSD)

The CD Audio Video Recorder displays English OSD only.

Disc Recovery

If the CD Audio Video Recorder is accidentally switched off during recording, the next time the player is powered on with the same disc inside, it will automatically go into **Recovery** mode.

In **recovery mode with a CD-R disc**, the CD Audio Video Recorder will automatically write the TOC (table of contents) on the disc. The track that was being recorded when the power was switched off will not be registered, but previous tracks will still be available.

Note: The CD-R disc cannot be used for further recording and cannot be finalised.

With a **CD-RW disc**, the last recording track will not be registered — the disc will only register previous recordings. The TOC will not be written, so further recordings are still possible.

Resume

When **RESUME** is pressed in Stop mode, the player will commence playing from the point it was stopped. Resume only works in Stop mode and if the same disc remains in the player. The VFD display changes from stop mode **RESUME / 03** to play mode **PLAY / 03 02:42** and **RESUME PLAY** is displayed for 3 seconds on the OSD.

Shuffle

Plays the tracks on the disc in a random and non-repeating sequence. The VFD displays **SHUFFLE / 03 11:40** and the OSD displays the track number for 3 seconds and goes off.

Press **STOP** to stop random play.

Press
POWER

Displays show
TERAPIN
CLOSE
READING

MUTE

mutes the audio output

Press
MUTE

again to re-activate the
audio output

Press
EJECT

to change, load or
remove a disk

Press
RESUME

to continue playing from
where you stopped

OSD shows
RESUME PLAY

Press
SHUFFLE

to play tracks randomly

General Functions



Display

When **DISPLAY** is pressed *once*, track run time **TRK TIM / 01 01:12** is displayed;
when pressed *twice*, the track remaining time **TRK REM / 01 00:34**;
when pressed *three times*, the disc run time is displayed **DSC TIM / 01:01**;
when pressed *four times*, the disc remaining time is displayed **DSC REM / 24:18**.
Press **DISPLAY** AGAIN TO GO BACK TO THE NORMAL DISPLAY - **PLAY / 01 01:12**.
All displays appear at both the VFD and OSD for 3 seconds before going off.

Press **DISPLAY**
once **TRK TIM / 01 01:12**
(track run time)
twice **TRK REM / 01 00:34**
(track remaining time)
3 times **DSC TIM / 01:01**
(disc run time)
4 times **DSC REM / 24:18**
(disc remaining time)

Press **DISPLAY**
again to go back to
normal display

Program

You can program the CD Audio Video Recorder to play tracks in your preferred order.

Press **PROGRAM**, the VFD displays the program number & a blank track number **PROGRAM / — P 01 —**. Key in the track number you want to play first. Key in the track number you want to play second and so on for further tracks.

The OSD displays the programmed sequence:

PROGRAM	TRACK
01	05
02	11
03	02 & so on.

To play the programmed CD, press **PLAY** to start. VFD displays **PR PLAY / 01 02:16** and OSD displays **PLAY** for 3 seconds.

To erase or clear the last program, press **PROGRAM CLEAR** once.

To erase or clear the whole program, press **STOP** for at least 3secs.

To leave programming mode without playing, press **PROGRAM**.

Press **PROGRAM**
VFD shows
PROGRAM / P — 01 —
Key in track no.

1	2	3
4	5	6
7	8	9
0		

Key in next track no.
and so on
OSD show sequence

Press **PLAY** to start
Press **PGM CLEAR** to clear
last program
Press **STOP** for 3 sec. to
clear whole program
Press **PROGRAM** to leave
programming mode
without playing



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General Functions

MENU

Use the Menu to change the CD Audio Video Recorder settings. In Stop mode, press **MENU** on the remote control — the VFD displays **MENU SETUP**.

The OSD displays:

RECORD SETTINGS

VIDEO IN	COMP B* / COMP F / S-VIDEO / NA**
AUDIO IN	ANALOG B* / COAXIAL / OPTICAL / ANALOG F

VIDEO FORMAT

INPUT	AUTO* / NTSC / PAL
OUTPUT	PAL* / NTSC / AUTO
MONITOR	DISABLE* / ENABLE

If the inserted disc is a partially recorded VCD-R/RW, then AUDIO IN changes to:

AUDIO IN **ANALOG B / ANALOG F**

* - default setting ** - appears only in coaxial/optical modes

Note: Please ensure that the video format of your recorder and TV/monitor are the same.

Press **NEXT** or **PREVIOUS** to scroll through the settings.

Use **◀◀** or **▶▶** to select the options.

Press **MENU** to exit without saving settings.

Press **CONFIRM** to save settings and exit.

Audio Mode

Press **AUD. MODE** to scroll through audio output options (Stereo, Left or Right).

VFD displays **LEFT / RIGHT / STEREO** and the OSD shows **LEFT CHANNEL / RIGHT CHANNEL / STEREO** depending on the number of times the button is pressed.

PBC OFF

This function is used for VCDs with playback control.

In Stop mode, press **PBC OFF** to deactivate playback control. VFD and OSD display **PBC OFF** for 3 seconds.

Press **PBC OFF** again to re-activate playback control. VFD and OSD display **PBC ON**.

RETURN

This function is used when playback control is activated.

Press **RETURN** to return to previous page of playback control. OSD displays **RETURN**.

In playback control, use the numeric keypad to select the options.

Press
MENU

at **Stop mode** to display settings

VFD shows **MENU**

OSD shows settings

Press

NEXT or **PREV**

to scroll through settings

Press

◀◀ or **▶▶**

to select options

Press
MENU

to exit without saving settings

Press
CONFIRM

to save settings and exit

Press
AUD. MODE

to scroll through audio output options (Stereo, Left or Right)

VFD shows
STEREO, LEFT or RIGHT

Press **PBC OFF** to deactivate playback control

VFD & OSD display
PBC OFF

Press **PBC OFF** to re-activate playback control

VFD & OSD display
PBC ON

When playback control is activated, press

RETURN

to go to previous page to select options

Playback Functions



The **CD Audio Video Recorder** supports basic playback of CD-DA or VCD discs. Functions include **Play**, **Pause**, **Stop**, **Next Track**, **Previous Track** and **Fast Forward & Fast Backward** (3 speeds – 1X, 2X and 3X), etc. which are described below and can be monitored at VFD (front panel) or OSD.

Play

In Stop mode, press **PLAY** to start playback. The VFD displays **PLAY / 01 00:00** in two lines & the OSD shows **PLAY** for 3 seconds.

It is also possible to select a specific track to play using the numeric keypad.

Press
PLAY

VFD: **PLAY / 01 00:00**
(track and run time)
or key in track no.



of specific track to play

Stop

In Play mode, press the **STOP** to stop playback. The VFD displays **VCD 2.0 / 12 54:13** (disc type/total time) in two lines & the OSD shows **STOP** for 3 seconds and then the boot-up logo.

Press
STOP

VFD: **VCD 2.0 / 12 54:13**
(disc type/total time)

Pause

In Play mode, press **PAUSE** to freeze playback. The VFD displays **PAUSE / 10 01:13** (Pause/track time) in two lines and the OSD shows **PAUSE** followed by **PICTURE FREEZE**.

PAUSE

freezes playback
VFD: **PAUSE / 10 01:13**
(Pause/track time)

Press **PLAY** to continue playback.

Press **PLAY** to
continue playback

Next

In Play mode, press **NEXT** to jump to the beginning of the next track. The VFD display changes from the current track to the next track (e.g. **PLAY / 09 01:23** to **PLAY / 10 00:01**). The OSD shows the track number for 3 seconds.

In Stop mode, press **NEXT** to jump to the beginning of the next track. VFD displays **VCD / 02** (disc type / track number) depending on the number of times the key is pressed. OSD displays the track number for 3 seconds. Press **PLAY** to play the particular track.

Press
NEXT

to jump to next track

VFD shows
PLAY / 09 01:23
PLAY / 10 00:01

Previous

In Play mode, press **PREV** to jump to the beginning of the current track. The VFD changes to the beginning of the current track e.g. **PLAY / 09 01:23** to **PLAY / 09 00:01**. The OSD shows the track number for 3 seconds.

Press **PREV** twice consecutively to jump to the beginning of the previous track. The VFD changes from the current track to the beginning of the previous track e.g. **PLAY / 09 01:23** to **PLAY / 08 00:01**.

In Stop mode, press **PREV** to jump to the beginning of the previous track. VFD displays **VCD / 02** (disc type / track number) depending on the number of times the key is pressed. OSD displays the track number for 3 seconds. Press **PLAY** to play the particular track.

Press
PREV

to go to beginning of
current track

VFD shows
PLAY / 09 01:23
PLAY / 09 00:01

Press **PREV** twice to
jump to beginning of
previous track



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Playback Functions

Fast Forward / Backward

In Play mode, press the ◀◀ or ▶▶ key to fast backward/forward the track. The fast forward/backward speed is **1X, 2X OR 3X**, depending on the number of times the ◀◀ or ▶▶ key is pressed. PRESS **PLAY** to stop fast forward/backward. The VFD shows **FF▶▶ X1 X2 X3** for F.FWD (similarly for F.BCK) and the OSD shows **SEARCH▶▶ X1 X2 X3** for F.FWD (similarly for F.BCK).

Press **PLAY** to resume normal playback speed.

Press

◀◀ or ▶▶

to fast reverse/forward
Speed (**1X, 2X or 3X**)
depends on number of
times key is pressed

Press **PLAY** to resume
normal playback

Repeat 1/All

In Play mode, press the **REPEAT** key once to select **REPEAT TRACK**. Press again to select **REPEAT DISC**. REPEAT TRACK plays the current repeatedly. REPEAT DISC plays the whole disc repeatedly. Press **REPEAT** three times to deactivate the **REPEAT** function.

The VFD displays **REP 1 / 03 00:30, REP ALL** or **REP OFF** and the OSD shows **REPEAT 1, REPEAT ALL** or **REPEAT OFF** for 3 seconds.

Note: For VCD (with Playback Control), this feature is only applicable when the PBC is in Off mode

Press

REPEAT

once to play **current track** repeatedly

twice to play **whole disc** repeatedly

three times to terminate
repeat function

View

Pressing **D/T VIEW** during **Stop mode** activates **DISC View**. The OSD displays **thumbnail views of all tracks** on disc — the screen is divided to show 9 sub-windows, each displaying the first 25 seconds of a track, in sequence. At the end of the 25-second sample, the last frame will be shown as a still image in the window while the next track runs in the next window.

At any point, press **PLAY** to play the active track.

If the disc contains more than 9 tracks, the player will show remaining tracks on a new screen. Press **NEXT** or **PREV** to move between Disc View screens.

Press **STOP** to deactivate **Disc View**.

Press

D/T VIEW

in stop mode to activate
Disc View

(thumbnail view of all
tracks on the disc)

Press

STOP

to deactivate **Disc View**

Press

D/T VIEW

in Play mode to activate
Track View

(thumbnail view of
current track)

Press

PLAY

to deactivate **Track View**

Pressing **D/T VIEW** during **Play mode** activates **Track View**. This is same as Disc View, except that the track currently playing is divided into 9 segments and each sub-window will display the first 15 seconds of the segment, in sequence. At the end of the ninth segment, the sequence starts again at the first segment. Activated during play mode only.

Press **PLAY** to deactivate **Track View**.

Step

When **STEP** is pressed while playback of a VCD is paused, the video advances to the next frame. The VFD displays **STEP 03 / 11:55** and the OSD displays **STEP**.

Press **PLAY** to resume normal playback.

Press

STEP

for frame-by-frame
when VCD is paused

Press

PLAY

to resume normal
playback

Playback Functions



Time Search

During **Stop or Play mode**, press **TIME SRCH** to immediately jump to any point in the track. The VFD displays **GOTO / -- --** and the OSD shows **GOTO ---:--** (max: disc time) in 2 lines. Enter the precise point on the track you wish to jump to (e.g. **22:15**, or 22 minutes 15 seconds into the current track) and the movie will continue from that point.

Press
TIME SRCH

OSD: **GOTO - - : - -**
(max: disc time)

Key in point in track to jump to



Slow Motion

Pressing **SLOW M** activates slow motion playback, which runs at **1/2, 1/4 or 1/8** speed, depending on how many times the button is pressed. The VFD displays **SLOW 1/2, (or 1/4, or 1/8) / 02 00:12**. The OSD displays the playback speed.

Press **PLAY** to resume normal playback speed.

Press
SLOW M

Slow motion speed
(**1/2, 1/4 or 1/8**)
depends on how many
times key is pressed

A-B Play

In Play mode, use this function to replay a particular sequence (music or video) as many times as you want. Press **A-B PLAY** to mark the beginning of the sequence – the VFD displays **REP A / 02 11:02** and the OSD shows **REPEAT A**. Press **A-B PLAY** again to mark the end – VFD now displays **REP A-B / 02 12:12** and the OSD shows **REPEAT A-B**. The player will repeat the segment between the two markers repeatedly until you press **A-B PLAY** again.

To replay a sequence
in a movie or song

Press
A-B PLAY

to mark the beginning
of the sequence

VFD: **REP A/02 11:02**
(start point)

Press
A-B PLAY

again to mark the end
of the sequence

VFD: **REP A-B/02 12:12**
(end point)

Movie/song loops
between these
2 points until

A-B PLAY

is pressed again



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Recording

Record Video/Audio

To record video or audio onto a CD-R or CD-RW disc, press **REC VIDEO** or **REC AUDIO** to go into **RECORD STANDBY MODE**. The VFD displays **R STDBY**.

Press **CONFIRM** to start recording or **STOP** to cancel. The VFD displays **VCD REC / 02 00:00** or **CD REC / 01 00:00**. The OSD displays **VCD RECORD** (for video recordings) or **CD RECORD** (for audio recordings) for 3 seconds.

To Stop/Pause recording, press the **STOP** or **PAUSE** key — the VFD displays **R STOP** or **R STDBY**. The OSD displays **RECORD STOP** or **RECORD STANDBY** for 3 seconds. Press **CONFIRM** to resume recording.

NOTES:

To prevent disruption of video stream, do not change the input video source into the recorder during video recording.

If you are recording from a VCR or camcorder, observe the following:

1. Start playback at the VCR/camcorder first and pause playback once the video image appears on the TV A/V channel.
2. Press **REC VIDEO**, **CONFIRM**, then release pause (i.e. continue playback) at the input source. The video recording commences.

To record audio or video, press

REC AUD or **REC VID**

VFD: **R READY**

Press **CONFIRM** to record
or **STOP** to cancel

To stop or pause a recording, press

STOP or **PAUSE**

Press **CONFIRM** to continue

Finalising a disc

Additional tracks (video or audio) can be added to a CD-R or CD-RW disc that has not been finalised. *A non-finalised disc cannot be played on any other CD/VCD player.* To finalise a disc, place it in the player and press **FINALISE**. The VFD shows **FINALIS** blinking and the OSD displays **FINALISE DISC?**. Press **CONFIRM** to proceed with finalisation or **STOP** to cancel it.

(continued below in "Confirm")

To finalise a disc, press

FINALISE

VFD: **FINALIS** blinking

Press **CONFIRM** to proceed

Press **STOP** to cancel

Confirm

(continued from "Finalising a disc")

If you press **CONFIRM**, the finalising process starts. The VFD and the OSD display **PREPARE VCD**. After that, the VFD displays **FINALIS / - 00:41** and the OSD shows **FINALISING / - 00:41**.

Once the disc is finalised, the VFD displays **FINALISE**.

If you press **CONFIRM**,
the OSD shows
PREPARE VCD
then

FINALISING / - 00:41

When finalising is complete, the VFD displays **FINALISE**

Recording



Erase

If a CD-RW disc has not yet been finalised, it is possible to erase the last recorded track or the entire disc. If the CD-RW disc has been finalised, it is possible to erase the entire disc, or to erase the TOC (table of contents) to enable further recordings.

To erase a *finalised* disc, press **ERASE** once. The VFD displays **ERS DSC** blinking and the OSD shows **ERASE DISC?**. Press **CONFIRM** to erase the entire disc, or **STOP** to cancel. If erasing is confirmed, the VFD displays **ERS DSC / WAIT** and the OSD shows **ERASE DISC**.

If the disc is *unfinalised*, pressing **ERASE** once causes the VFD to display **ERS TRK** blinking and the OSD to show **ERASE TRACK?**. Press **CONFIRM** to erase the last recorded track, or **STOP** to cancel. If erasing is confirmed, the VFD displays **ERS TRK / WAIT** and the OSD shows **ERASE TRACK**.

To erase an *unfinalised* disc, press **ERASE** twice. The VFD displays **ERS DSC** blinking and the OSD shows **ERASE DISC?**. Press **CONFIRM** to erase the disc, or **STOP** to cancel. If erasing is confirmed, the VFD displays **ERS DSC / WAIT** and the OSD shows **ERASE DISC**.

If a disc has been finalised, the only way to continue recording on it is to unfinalise it by erasing the TOC (table of contents). To do this, press **FINALISE** once. The VFD displays **ERS TOC** blinking and the OSD shows **ERASE TOC?**. Press **CONFIRM** to erase the TOC, or **STOP** to cancel. If erasing is confirmed, the VFD displays **ERS TOC / - 00:40** and the OSD shows **ERASE TOC / - 00:40**.

CD Synchronize

During a digital audio recording session, this option allows the user to synchronize the source CD player with the CD Audio Video Recorder.

Press **CD-SYNC** **once** for single-track recording or **twice** for all-track recording. The VFD displays **SYNC / REC 1** OR **SYNC / REC ALL** for 3secs, then shows **WAIT**. When the VFD changes to **READY**, and the OSD displays **SYNC RECORD READY**, start playback from the source and the will start recording.

The VFD displays **CD REC / 01 00:43** and the OSD shows **CD RECORD**.

Notes: 1. Only applicable to digital audio recordings

2. During CD Synchronize, do not interrupt the digital audio source

Last Track

During an auto-mode audio recording, if **LAST TRACK** is pressed, the player will automatically stop recording after the current track. The VFD displays **LAST TK / 06 11:13**.

To erase a *finalised* CD-RW disc

Press **ERASE** **once**
Press **CONFIRM** or **STOP**

To erase last recorded track of an *unfinalised* CD-RW disc

Press **ERASE** **once**
Press **CONFIRM** or **STOP**

To erase an *unfinalised* CD-RW disc

Press **ERASE** **twice**
Press **CONFIRM** or **STOP**

To unfinalise a *finalised* CD-RW disc

Press **FINALISE** **once**
Press **CONFIRM** or **STOP**

Press **CD SYNC**
once for single-track recording &
twice for all-track
Display shows **WAIT**
then **READY**

Start playback at the source device

Recording commences automatically

To stop recording after the current track, press

LAST TRK



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Recording Procedure

Recording from an external source

- Check for correct connections from external source to this unit
- Press **EJECT** to eject the tray, and load a CD-R or CD-RW disc
- Check that the VFD indicates **CD-R** or **CD-RW** — the recording procedure is the same for both disc types
- If the disc is already partially recorded, the recorder automatically finds the end of the last recording, so that the new recording follows on correctly
- To select **audio input source**:
 - press **SOURCE** on the front panel, or **MENU** on the remote control
- To select the **video input source**:
 - At **stop mode**, press **MENU** on the remote control to activate the Video display
 - Select the appropriate **Record Setting & Video Format**, using the **◀◀** or **▶▶** and **PREV/NEXT** keys to scroll through the options
 - Press **CONFIRM** to save the settings and exit

Insert CD-R or CD-RW disc

Display shows
CD-R or CD-RW

To select an **audio** input source, press

SOURCE (front panel) or
MENU (remote control)

To select a **video** input source, press

MENU

Use

◀◀ or **▶▶**

&

PREV / **NEXT**

to scroll through options

Press **CONFIRM** to save settings and exit

Analog sources

- Press **SOURCE** repeatedly to bring up **ANALOG** on the display, or **MENU** on the remote control.
- Select auto/manual track increment mode by pressing **AUTO/MANUAL**. The VFD shows **AUTO** when auto track increment mode is selected
- In **AUTO** mode, a new track number is inserted automatically each time the CD-Recorder detects a pause in the source more than 3-seconds long. In this mode, track numbers cannot be inserted manually (only applies to analog audio recordings)

NOTE: For auto-mode recordings, follow this procedure:

1. Adjust the Record level, and start play at the source.
2. Press **REC AUD**. The VFD displays **READY**.
3. Once the source starts playing, recording commences automatically.

- In **MANUAL** mode, track numbers can be inserted manually at any required point during recording by pressing **NEXT**
- Start play at the source and adjust the **Record Level** control on the front panel until the recording level meter on the VFD shows all the segments during the loudest music passages
- To start recording, press **REC AUD** or **REC VID** to go into **RECORD STANDBY MODE**. THE VFD SHOWS **R STDBY**. Press **CONFIRM** to record or **STOP** to cancel.

NOTES:

- To prevent disruption of video stream, do not change the input video source into the recorder during video recording.
- If your TV audio/video output is connected to your recorder audio/video input, and your recorder audio/video output is connected to your TV audio/video input, your TV A/V channel might oscillate. Do not worry, this is normal. You can still choose the channel you wish to record and the recording will be unaffected.
- Press **DISPLAY** to show the current track number and elapsed recording time. To see the remaining recording time, press **DISPLAY** again

Press

SOURCE (front panel)

until **ANALOG** is displayed, or

MENU (remote control)

Press **AUTOMAN** to select track increment mode

Start playback at the source and **adjust** the **recording level** (front panel) until the recording level meter shows **all segments** during the loudest music passages

To start recording, press

REC AUD or **REC VID**

VFD: **R STDBY**

Press **CONFIRM** to record or **STOP** to cancel

Pressing **DISPLAY** shows
01 01:15

(track no & elapsed time)

Press **DISPLAY** again to see remaining recording time

Recording Procedure



- In **AUTO** mode, recording stops automatically if the recorder detects a 20-second pause in the input source.
- To stop recording in **AUTO** or **MANUAL** mode, press **STOP**. The CD-Recorder automatically updates the disc's temporary Table Of Contents (TOC).
- When the disc is full, it must be finalised before it can be played on another CD/VCD player. See **Finalising A Disc** on page 15.

Digital audio sources

- For recording from external source through the digital coaxial or optical in connections
- Press **SOURCE** repeatedly to bring up **COAXIAL** or **OPTICAL** (depending on the input connection that you are using) on the VFD, or press **MENU** on the remote control.
- With coaxial/optical source recordings, only manual track increment is possible.
In **MANUAL** mode, track numbers can be inserted manually at any required point during recording by pressing **NEXT**.
- Start play at the digital source
- To start recording, press **REC AUD** to go into **RECORD STANDBY MODE**. The VFD shows **R STDBY**. Press **CONFIRM** to record or **STOP** to cancel.
- Press **DISPLAY** to show the current track number and elapsed recording time. To see the remaining recording time, press **DISPLAY** again
- To stop recording, press **STOP**. The CD-Recorder automatically updates the disc's temporary Table Of Contents (TOC).
- When the disc is full, it must be finalised before it can be played on another CD/VCD player. See **Finalising A Disc** on page 15.
- A disc that is not finalised cannot be played on another CD player, unless the player is also a CD recorder. Non-finalised CD-R discs can always be played on the CD recorder itself. It is also possible to add recordings later if sufficient recording time remains.

Automatic digital source recording – CD SYNC

- For synchronized recording of individual tracks or an entire disc from external source through digital coaxial or optical in connections.
- If necessary, press **SOURCE** repeatedly to bring up **COAXIAL** or **OPTICAL** (depending on the input connection that you are using) on the VFD, or press **MENU** on the remote control.
- Ensure that the digital source is not playing
- Follow the procedure in the section "CD Synchronize" on page 16.

Note: During CD Synchronize, do not interrupt the digital audio source.

Press

STOP

to stop recording

Press **SOURCE** until
COAXIAL or **OPTICAL**
is displayed,
or press **MENU** on the
remote control

Start playback at the
digital source

To start recording, press

REC AUD or **REC VID**

VFD: **R READY**

Press **CONFIRM** to record
or **STOP** to cancel

Pressing **DISPLAY** shows
01 01:15
(track no & elapsed
time)

Press **DISPLAY** again to
see remaining
recording time

Press **SOURCE** until
COAXIAL or **OPTICAL**
is displayed,
or press **MENU** on the
remote control

Ensure the digital source
is not playing

Press **CD SYNC**

once for single-track
recording &
twice for all-track

Display shows **WAIT**
then **READY**

Start playback at the
source device

Recording commences
automatically



Recording Procedure

Stop recording

- To stop recording, press **STOP**
- To stop after current track is recorded, press **LAST TRACK** (only applicable to analog audio recordings).
- To continue recording, press **REC AUD** or **REC VID** button.

To stop recording, press

STOP

To stop recording after the current track, press

LAST TRK

(only applicable to analog audio recordings)

To continue recording, press

REC AUD or **REC VID**

Pause Recording

- To temporarily stop recording, press **PAUSE**. However, recording will resume only at the next track (not applicable to CD-Synchronize)
- To continue recording, press **CONFIRM**.

To pause recording, press

PAUSE

Recording only continues at the next track (not applicable to CD-Synchronize)

To release pause, press

CONFIRM

Remarks about Digital Audio Recording

The following is only applicable to digital audio recording.

The **Serial Copy Management System (SCMS)** only allows digital audio recording under specific conditions, i.e.

1. it is not possible to make a digital copy from another digital copy, only from the original source disc
2. Analog recording is always possible.
3. The number of recordings from the original is unlimited.

If you are having difficulties with your recorder, we recommend you run through the following checklist before sending it in for servicing. It could be that you simply overlooked a crucial step!

If the fault still persists, please contact the service desk in your country. The contact number and address can be found on your warranty card.

WARNING!

Under no circumstances should you attempt to repair the recorder yourself as this will expose you to unnecessary hazards.

Symptom	Procedure
No Power	<ul style="list-style-type: none"> • ensure that the POWER button is on • ensure that the power cord has been properly plugged in (both ends) • switch the recorder off and restart it
Remote Control does not work	<ul style="list-style-type: none"> • point the remote control directly at the recorder when using it • check the batteries and replace them if necessary • check the polarity of the installed batteries
Can't Play CDs	<ul style="list-style-type: none"> • ensure the CD is properly placed in the recorder (not upside down) • clean the disc (follow instructions in "Maintenance") • try another disc
Can't Record	<ul style="list-style-type: none"> • ensure that you aren't trying to record on a finalised disc • ensure the CD is properly placed in the recorder • clean the disc (follow instructions in "Maintenance") • check that the correct input source has been chosen
No audio/video	<ul style="list-style-type: none"> • check that the appropriate audio/video cables are correctly connected • ensure that the menu settings are correct
Analog recordings are distorted	<ul style="list-style-type: none"> • ensure that the recording level is set correctly
Automatically starts a new track during video recording	<ul style="list-style-type: none"> • ensure that the input video source is fixed during video recording • try recording again with a fixed input video source to see if the symptom still persists
A/V Channel oscillations	<ul style="list-style-type: none"> • this might happen when your TV audio/video output is connected to your recorder audio/video input and your recorder audio/video output is connected to your TV audio/video input. This is normal and will not affect recording.
Black/white image on a color TV	<ul style="list-style-type: none"> • ensure that the video out format (MENU setting) of the recorder and TV are the same.
Recorded CD can't be played in a PC	<ul style="list-style-type: none"> • ensure that the CD-ROM drive in the PC has multi-read capability
Recorded CD can't be played a DVD player	<ul style="list-style-type: none"> • please refer to the specific player's user manual or brochure to ensure that it supports CD-R/RW playback

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